

ira

- Gravity **13.8 BLG**
- ABV **5.7 %**
- IBU **24**
- SRM **12.6**
- Style **Irish Red Ale**

Batch size

- Expected quantity of finished beer **23 liter(s)**
- Trub loss **10 %**
- Size with trub loss **26.4 liter(s)**
- Boil time **70 min**
- Evaporation rate **10 %/h**
- Boil size **32.2 liter(s)**

Mash information

- Mash efficiency **85 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **18.9 liter(s)**
- Total mash volume **25.2 liter(s)**

Steps

- Temp **62 C**, Time **30 min**
- Temp **72 C**, Time **30 min**
- Temp **78 C**, Time **10 min**

Mash step by step

- Heat up **18.9 liter(s)** of strike water to **69C**
- Add grains
- Keep mash **30 min** at **62C**
- Keep mash **30 min** at **72C**
- Keep mash **10 min** at **78C**
- Sparge using **19.6 liter(s)** of **76C** water or to achieve **32.2 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pilzneński	3 kg (47.6%)	80 %	4
Grain	Viking Pale Ale	1 kg (15.9%)	80 %	6
Grain	Strzegom Karmel 30	1 kg (15.9%)	75 %	30
Grain	red crystal	0.3 kg (4.8%)	75 %	400
Grain	Strzegom Karmel 30	1 kg (15.9%)	75 %	30

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Marynka	20 g	60 min	9 %
Boil	Citra uniwersalny	20 g	10 min	13.5 %
Aroma (end of boil)	Citra uniwersalny	20 g	1 min	13.5 %

Yeasts

Name	Type	Form	Amount	Laboratory
fm	Lager	Slant	100 ml	---